

## **PREPARING TO USE BINAURAL BEAT SOUND WITH DEAF CLIENTS**

*by Helene Guttman, PhD*

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People with normal hearing, as well as those who are profoundly deaf, sense sound vibrations. These sensations do not always "enter" via the ears. How can we make use of this ability so that profoundly deaf individuals can utilize binaural beat audio tapes, such as The Monroe Institute's Hemi-Sync®, to stimulate beneficial changes in states of awareness readily enjoyed by individuals with normal hearing?

There are some clues in the way profoundly deaf individuals sense sound vibration. Evelyn Glennie, a profoundly deaf, internationally famous musician, is a percussionist who performs barefooted in order to sense her own instruments and those of the accompanying orchestra. Is this a special trait reserved for gifted, trained musicians? No! For example, in July 2002 a major international festival called Deafway II was held in Washington, D.C., at Gallaudet University, the premier educational institution for the deaf and hard of hearing. Many people with normal hearing were surprised to learn that the program included dancing to rock bands. Their beats were easily followed by the deaf dancers through the vibrations of the music coursing up from their feet through their bodies. Deaf nondancers clustered around the loudspeakers, placed their hands on the speakers, and swayed to the beat coursing through their bodies from their hands. So, must deaf individuals place either their feet or hands on loudspeakers to enjoy the benefits of Hemi-Sync? As will be shown, all people, hearing or deaf, sense sound via several routes—the ears being just one.

The objective of this study was to locate convenient and comfortable placements for inexpensive, readily available headphones on deaf individuals. These placements would allow them to use Hemi-Sync to move into different states of consciousness and achieve the benefits enjoyed by hearing individuals, such as relaxation and pain control. Since Hemi-Sync-induced changes in states of awareness are usually accompanied by synchrony between the left and right sides of the brain at the same frequency, these electrophysiological changes were used to determine the best non-ear placements for headphones.

Six hearing individuals were the subjects. Using 16-channel EEG brainmapping equipment, EEGs were measured while sound was delivered through headphones placed over the ears or at other head locations. The brainmapper was employed to ascertain whether there were specific electrophysiological responses that were independent of the anecdotal reports of the individual being tested. When non-ear locations were tested, subjects were fitted with earplugs to prevent sound sensation via the ears.

The tapes used were either a Hemi-Sync-embedded meditation music tape entitled *METAMUSIC® Inner Journey* or an *Inner Journey* tape lacking Hemi-Sync (kindly provided by Dr. Darlene Miller of The Monroe Institute)<sup>1</sup> or the Hemi-Sync-embedded tape *Touring the Interstate* from the *GOING HOME®* series.

Both subjects and operator were unaware (blinded to) which tapes were being played. Therefore, subjects had no “clues” as to what they might experience. During playing of a tape, the operator viewed the brainmap on the computer screen.

Results showed that left-right brain synchrony could be achieved with headphones placed at several non-ear locations. The best location—judged both for comfort and ease in keeping headphones in place—was approximately one inch above and slightly behind each ear.<sup>2</sup> In addition, subjects reported relaxation and a “feeling of lightness” with both versions of *Inner Journey*.

Anecdotal reports of subjects fitted with headphones at non-ear locations during the playing of *Touring the Interstate* were particularly interesting. Although the subjects received no clues as to what to expect—either from the operator or from the verbiage on the tape—their experiences replicated the essence of reports by individuals who had listened to the instructions on the tape and had also read the instructions for *GOING HOME*. They described moving through different colors (representing different Focus levels), then visualizing or hearing deceased relatives or “non-earthly beings.”

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<sup>1</sup> This pair of tapes was used to establish that nonhuman subjects responded to Hemi-Sync with both left-right brain synchrony and noticeable behavioral changes (Guttman, 1991; Guttman and Bliley, 1992).

<sup>2</sup> Approximately between T3 and T5 on the left and between T4 and T6 on the right (using the International 10-20 Standard Electrode Placement map).

Subsequent to completion of this series of experiments, an American Sign Language (ASL) translator, who also is a hypnotherapist,<sup>3</sup> suggested still another headphone placement that might be even more comfortable. This placement is roughly over the carotid (neck) arteries and can be perceived by first feeling the pulsation of the arteries and then placing the headphones over the pulsation. Using the Touring the Interstate tape, a client replicated—in general—the same report as with headphones located over other non-ear head locations. Proof that this was indeed due to the Hemi-Sync sounds delivered through the nerve close to the carotid arteries came when the headphones inadvertently slipped from their placement. The subject, an experienced Hemi-Sync user, then reported that the “experience” was ending and that she was returning to her usual conscious state.

As a result of this study with control subjects, I am in the process of including various Hemi-Sync-embedded tapes with deaf clients, and I encourage others to do so, too.

## References

Guttman, Helene N. 1991. Hemi-Sync sounds for synchronizing brains of horses. Hemi-Sync Journal IX (4) 7-8.

Guttman, Helene N., and Shirley Bliley. 1992. Behavioral effects of Hemi-Sync embedded meditation music on a horse. Hemi-Sync Journal X (4) 1-2.

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<sup>3</sup> Personal communication from Chris Adshade, 2002.